V <i> </i> 73 Numi		Branch Forcessing Date:
		fled by:
Cha	nged the margins in cases where the sequence text was "wrapped" dov	wn to the next line.
Edit	ed a format error in the Current Application Data section, specifically:	
	ed the Current Application Data section with the actual current number icant was the prior application data; or other	The namber inputted by
Add	ed the mandatory heading and subheadings for "Current Application Da	ata".
Edit	ed the "Number of Sequences" field. The applicant spelled out a number	er instead of using an inte
Cha	nged the spelling of a mandatory field (the headings or subheadings), s	pecifically:
Corr	ected the SEQ ID NO when obviously incorrect. The sequence number	rs that were edited were:
Inse	ted or corrected a nucleic number at the end of a nucleic line. SEQ ID	NO's edited:
	ected subheading placement. All responses must be on the same line a cant placed a response below the subheading, this was moved to its ap	
inse	rted colons after headings/subheadings. Headings edited included:	
Dele	ted extra, invalid, headings used by an applicant, specifically:	
	eted: non-ASCII "garbage" at the beginning/end of files; secretal page numbers throughout text; other invalid text, such as	
inse	rted mandatory headings, specifically:	051
Cor	rected an obvious error in the response, specifically:	RECEIV
Edit	ed identifiers where upper case is used but lower case is required, or vi	ce versa. GROUP
Con	rected an error in the Number of Sequences field, specifically:	
A "H	lard Page Break" code was inserted by the applicant. All occurrences h	nad to be deleted.
	ed ending stop codon in amino acid sequences and adjusted the *(A)Lo a PatentIn bug). Sequences corrected:	
due t		

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING PATENT APPLICATION US/08/945,574

DATE: 08/29/98 TIME: 13:31:18

INPUT SET: S28291.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

```
Corrected Diskette Needed
        1
                                               SEQUENCE LISTING
        2
        3
            (1)
                   General Information
             ((I)) APPLICANTS:
        5 (
           (Lenting, Hermanus Bernardus Maria
            Van Beckhoven, Rudolf Franciscus Wilhelmus Cornelis
        7
            Maurer, Karl-Heinz
        8
            Kottwitz, Beatrix
        9
            Weiss, Albrecht
       10
       11
            Van Solingen, Pieter
       12
       13
              (ii)TITLE OF INVENTION: Detergents Comprising Cellulases
       14
              (iii) NUMBER OF SEQUENCES:
       15
       16
       17
              (iv) CORRESPONDENCE ADDRESS:
            (A) ADDRESSEE: Henkel Corporation
       18
            (B) STREET: 140 Germantown Pike, Suite 150
       19
       20
            (C) CITY: Plymouth Meeting
       21
            (D) STATE: Pennsylvania
       22
            (E) COUNTRY: U.S.A.
       23
            (F) ZIP: 19462
       24
       25
              (v) COMPUTER READABLE FORM:
            (A) MEDIUM TYPE: 3.5" diskette
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            (B) COMPUTER: IBM PC compatible
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            (C) OPERATING SYSTEM: MS-DOS
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            (D) SOFTWARE: MS Word 6.0
       30
       31
              (vi)CURRENT APPLICATION DATA:
       32
            (A) APPLICATION NUMBER: 1
              U.S. Ser. No. 087945,574
       33
            (B) FILING DATE: 9
       34
       35
              (unavailable
-->
       36
            (C) CLASSIFICATION: (IPC) 7
               Clan
       37
                      9/42
       38
                CllD
                     3/386
       39
       40
              (vii)PRIOR APPLICATION DATA
       41
            (A) APPLICATION NUMBERS: 7
       42
               (PCT/EP96/01755
       43
                EP 95201115.3
       44
                U.S. 614,115
       45
            (B) FILING DATES:
       46
               (26 Apr. 1996
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RAW SEQUENCE LISTING PATENT APPLICATION US/08/945,574

DATE: 08/29/98 TIME: 13:31:20

```
28 Apr. 1995
47
         12 Mar. 1996
48
49
50
51
52
53
       (viii) ATTORNEY/AGENT INFORMATION:
           (A) NAME: Murphy, Glenn E. J.
     (B) REGISTRATION NUMBER: 33,539
55
56
     (C) REFERENCE/DOCKET NUMBER: H 1920 PCT/US
57
58
       (ix) TELECOMMUNICATION INFORMATION:
59
     (A) TELEPHONE: (610) 832-2228
     (B) TELEFAX: (610) 941-6067
60
     (C) E-MAIL: Clenn Murphy Henkel-Americas.com
61
62
63
64
65
     (2) INFORMATION FOR SEQ ID NO:1:
66
67
       (i) SEQUENCE CHARACTERISTICS:
68
     (A) LENGTH: 467 amino acids
69
     (B) TYPE: amino acid
70
     (C) STRANDEDNESS: single
71
    (C) TOPOLOGY: linear
72
73
         (ii) MOLECULE TYPE: protein
74
75
         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
76
77
78
    Met Lys Lys Ile Thr Thr Ile Phe Ala Val Leu Leu Met Thr Leu Ala
79
    -26 -25
                             -20
80
81
    Leu Phe Ser Ile Gly Asn Thr Thr Ala Ala Asp Asp Tyr Ser Val Val
82
83
84
    Glu Glu His Gly Gln Leu Ser Ile Ser Asn Gly Glu Leu Val Asn Glu
85
86
87
    Arg Gly Glu Gln Val Gln Leu Lys Gly Met Ser Ser His Gly Leu Gln
88
89
90
    Trp Tyr Gly Gln Phe Val Asn Tyr Glu Ser Met Lys Trp Leu Arg Asp
91
92
93
    Asp Trp Gly Ile Thr Val Phe Arg Ala Ala Met Tyr Thr Ser Ser Gly
94
95
    Gly Tyr Ile Asp Asp Pro Ser Val Lys Glu Lys Val Lys Glu Thr Val
97
98
99
    Glu Ala Ala Ile Asp Leu Gly Ile Tyr Val Ile Ile Asp Trp His Ile
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RAW SEQUENCE LISTING PATENT APPLICATION US/08/945,574

DATE: 08/29/98 TIME: 13:31:21

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101													- -		_		
102	Leu	Ser	_	Asn	Asp	Pro	Asn		Tyr	Lys	Glu	Glu		Lys	Asp	Phe	
103			105					110					115				
104	_,	_			_						_	_			-7.		
105	Phe	-	GLu	Met	Ser	GLu		Tyr	СТĀ	Asp	Tyr		Asn	vaı	lle	Tyr	
106		120					125					130					
107				_		_	_		_	_			_	_	_		
108		IIe	Ala	Asn	Glu		Asn	GTÀ	Ser	Asp		Thr	Trp	Asp	Asn		
109	135					140					145					150	
110		_	_	_		~7	~7			_	1	~1 .	•	•	•		
111	тте	гÀг	Pro	Tyr	Ala	GIU	GIU	vaı	тте		vaı	тте	arg	Asp		Asp	
112					155					160					165		
113	D	3		-1 -	11-7	- 1-	17-7	a1	mla	a 1	mb	m	C	<u>ما ب</u>	3 ~~	val	
114	Pro	ASN	Asn		Val	тте	vaı	GTÄ		сту	Thr	Trp	ser		Asp	vai	
115				170					175					180			
116	TT:	774 ~	37.	31 -		3	~1 ~	T	31.	3 ~ ~	D=0	3	17.5	Wa+	M	11a	
117 118	HIS	nıs	185	АТа	Asp	ASN	GIN	190	АТА	ASP	PIO	ASII	195	мес	Tyr	ATG	
119			100					1 90					193				
120	Dha	ui ~	Dha	П	Ala	a 1	mb ×	uic	۵1	01 n	A a n	Τ	1	N = 50	aln	Val	
121	Pile	200	FILE	ıyı	АТА	СТУ	205	птъ	сту	GIII	ASII	210	Arg	wsb	GIII	Val	
121		200					203					210					
123	Acn	тиг	λla	LOU	Asp	Gln	Gl v	λla	בוג	τla	Dha	Val	Sor	@lu	Trn	G] v	
124	215	ıyı	АТа	neu	мэр	220	GLY	AIG	ALG	116	225	Val	Ser	GIU	115	230	
125	213					220					223					230	
126	Thr	Ser	Δla	Δla	Thr	Glv	Asn	Glv	Glv	Val	Phe	T.e.11	Δsp	Glu	Δla	Gln	
127		DCI	лти	AIG	235	OLY	r25	CLY	OLY	240	1 110	пси	АЗР	OIU	245	0111	
128					233					240					LIJ		
129	Val	Trn	Tle	Asn	Phe	Met	Asn	Glu	Δra	Δsn	[.e11	Ser	Trp	Δla	Asn	Trp	
130	***			250			p		255					260			
131																	
132	Ser	Leu	Thr	His	Lys	Asp	Glu	Ser	Ser	Ala	Ala	Leu	Met	Pro	Glv	Ala	
133			265		-1-	-		270					275				
134																	
135	Asn	Pro	Thr	Gly	Gly	Trp	Thr	Glu	Ala	Glu	Leu	Ser	Pro	Ser	Gly	Thr	
136		280		•	•	-	285					290			•		
137																	
138	Phe	Val	Arg	Glu	Lys	Ile	Arg	Glu	Ser	Ala	Ser	Ile	Pro	Pro	Ser	Asp	
139	295		_		_	300	_				305					310	
140																	
141	Pro	Thr	Pro	Pro	Ser	Asp	Pro	Gly	Glu		Asp	Pro	Gly	Glu	Pro	Asp	
142					315					320					325		
143																	
144	Pro	Thr	Pro	Pro	Ser	Asp	Pro	Gly	Glu	Tyr	Pro	Ala	Trp	Asp	Ser	Asn	
145				330					335					340			
146																	
147	Gln	Ile	Tyr	Thr	Asn	Glu	Ile		Tyr	His	Asn	Gly	Gln	Leu	Trp	Gln	
148			345					350					355				
149																	
150	Ala		Trp	Trp	Thr	Gln		Gln	Glu	Pro	Gly	_	Pro	Tyr	Gly	Pro	
151		360					365					370					
152																	

204 205

RAW SEQUENCE LISTING PATENT APPLICATION US/08/945,574

DATE: 08/29/98 TIME: 13:31:23

				r	AIE		APPI	LICA	110	N U	/3/08	1945	,3/4				TIME: 13
153 154	Trp 375	Glu	Pro	Leu	Lys	Ser 380	Asp	Pro	Asp	Ser	Gly 385	Glu	Pro				S28291.raw
155 156 157 158	Pro	Pro	Ser	Asp	Pro 395	Gly	Glu	Туг	Pro	Ala 400	Trp	Asp	Ser	Asn	Gln 405	Ile	
159 160 161	Tyr	Thr	Asn	Glu 410	Ile	Val	Tyr	His	Asn 415	Gly	Gln	Leu	Trp	Gln 420	Ala	Lys	
162 163 164	Trp	Trp	Thr 425	Gln	Asn	Gln	Glu	Pro 430	Gly	Asp	Pro	Tyr	Gly 435	Pro	Trp	Glu	
165 166 167 168 169	Pro	Leu 440	Asn														
170 171	(2)				FOR												
172		(i)	SEQU	ENCE	CHA	RACT	ERIS	TICS	3:								
173		LENG		574	ami	no a	cids	3									
174	(B)	TYPE	:: a	mino	aci		•										
175			NDED		: s	ingl	e										
176	(D)	TOPO	LOGY	: 1	inea	r											
177 178		(ii)	MOL	ECUL	E TY	PE:	pro	teir	n								
179																	
180		(X1)	SEQ	UENC	E DE	SCRI	PTIC	N: S	SEQ 1	D NC): 2	2:					•
181																	
182 183	Wot	T	. m~~	Wat	T	C - ~	Wat		. m		1.		w. I	T		1 17-1	
184 185	1	гуз	Trp	мес	. Lys 5	ser	мес	. val	LTE	10	1 Ala	vaj	. val	. Let	1 va. 15	l Val	L
186	Ser	Phe	. Val	Ala	Pro	Ala	Val	. Sei	Ser	· Ala	a Asr	ı Glu	ı Asr	Val	Lvs	s Thr	-
187				20					25					30	,-		•
188														•			
189	Leu	Asp	Ile	Gln	Ser	Tyr	Val	. Arc	a Asr	Met	Glr	Pro	Gly	Tr	Ası	ı Lev	1
190		•	35			-	•	40	•				45	•			
191	Gly	Asn	Thr	Phe	Asp	Ala	Val	. Gly	, Glr	Asp	Glu	Thr	Ala	Trp	Gly	y Asr	1
192		50					55			_		60		_	_		
193																	
194	Pro	Arg	Val	Thr	Arg	Glu	Leu	ı Ile	e Glu	Arg	, Ile	Ala	Asp	Glu	ı Gly	у Туг	:
195	65					70					75					80	
196																	
197	Lys	Ser	Ile	Arg	Ile	Pro	Val	. Thi	Trp	Glu	ı Asr	Arg	, Ile	Gly	gly	y Ala	1
198					85					90					95		
199																	
200	Pro	Asp	Tyr			Asp	Pro	Glr			ı Asr	Arg	, Val	_		ı Val	-
201				100	1				105	,				110			
202		_		_													
203	Val	Gln	_		Leu	Glu	Glu	_		Tyr	: Val	. Met			ı Leı	ı His	5
204			115					120)				125	•			
205																	

RAW SEQUENCE LISTING PATENT APPLICATION US/08/945,574

DATE: 08/29/98 TIME: 13:31:24

														ELVE	UIS	E1; 320491
206 207	His	Asp 130	Ser	Trp	Leu	Trp	Ile 135	Tyr	Glu	Met	Glu	His 140	Asn	Tyr	Asn	Gly
208	_		_							_	_					_
209		Met	Ala	Lys	Tyr	Arg	Ser	Leu	Trp	Glu	Gln	Leu	Ser	Asn	His	
210	145					150					155					160
211																
212	Lvs	Asp	Tvr	Pro	Thr	Lys	Leu	Met	Phe	Glu	Ser	Val	Asn	Glu	Pro	Lvs
213	-1-		- 1 -		165	-1-				170					175	-1-
					103					1/0					1/3	
214	_,	_		_	_		~7		_		_				_	_
215	Pne	ser	GIN		Trp	Gly	GIU	тте	_	GIU	Asn	HIS	HIS		Leu	Leu
216				180					185					190		
217																
218	Asp	Asp	Leu	Asn	Thr	Val	Phe	Phe	Glu	Ile	Val	Arg	Gln	Ser	Gly	Gly
219	_	-	195					200					205		_	_
220																
221	Gln	λen	λen	т1Д	Ara	Pro	Lau	Ual	Leu	Dro	Thr	Mot	Glu.	Thr	λla	Thr.
	GIII		ASP	116	ALG	FIO		Val.	Leu	FIU	1111		GIG	1111	AIG	1111
222		210					215					220				
223		_								_	_	_				
224	Ser	Gln	Pro	Leu	Leu	Asn	Asn	Leu	Tyr	Gln	Thr	Ile	Asp	Lys	Leu	Asp
225	225					230					235					240
226																
227	Asp	Pro	Asn	Leu	Ile	Ala	Thr	Val	His	Tvr	Tvr	Glv	Phe	Trp	Pro	Phe
228					245					250	-1-	1		F	255	
229					213					250					233	
	G	17 7	3	T 3.		a1	Ш	mb	N	Dh.	a 1	a 1	3	G	Т	3
230	ser	vaı	ASn		Ата	Gly	Tyr	Thr	_	Pne	GIU	GIU	ASP		гÀг	Arg
231				260					265					270		
232																
233	Glu	Ile	Ile	Glu	Thr	Phe	Asp	Arg	Val	His	His	Thr	Phe	Val	Ala	Arg
234			275					280					285			
235																
236	Glv	Tle	Pro	Val	Val	Leu	Glv	Glu	Phe	Glv	Leu	Leu	Glv	Phe	Asp	Lvs
237	1	290					295			1		300	1			-1-
238		270					2) 3					300				
	***	m1	a 1		~1 -	a 1	a1	a1	a1	*	•	.		-	a 1	m
239		Thr	СТА	vaı	тте	Gln	GIN	GTÄ	GIU	гàг		ьys	Pne	Pue	GIU	-
240	305					310					315					320
241																
242	Ļeu	Ile	His	His	Leu	Asn	Glu	Arg	Asp	Ile	Thr	His	Met	Leu	Trp	Asp
243					325					330					335	
244																
245	Asn	Glv	Gln	His	Phe	Asn	Ara	His	Thr	Tvr	Glu	Trp	Tur	Asp	Glu	Glu
246		011	01	340	1110	11011	9	*****	345	- 1 -			- 7 -	350	014	014
247				340					343					330		
	_		_		_	_		_	_			_	_			
248	Leu	Pne	_	мет	Leu	Arg	Ата		Trp	GTÀ	GTÀ	Arg		Ser	vaı	АТА
249			355					360					365			
250																
251	Glu	Ser	Asn	Phe	Ile	Tyr	Leu	Lys	Gln	Gly	Asp	Arg	Ile	Ala	Asp	Ala
252		370				_	375	-		-	-	380			-	
253							- · -									
254	Thr	Val	ጥኮኖ	Len	G1 n	Leu	uic	G1 11	Acn	G1::	Len	ጥሎ፦	G1 v	Tan	Gl n	λla
255		Val	TILL	ьeu	3111		1112	сту	HOII	GIU		TIIT	GIY	Leu	3111	
	385					390					395					400
256	_			_				-			_					
257	Asn	Gly	Gln	Arg		Thr	Pro	Gly	Gln	-	Tyr	Glu	Leu	Asn	-	Glu
258					405					410					415	

SEQUENCE VERIFICATION REPORT PATENT APPLICATION *US/08/945,574*

DATE: 08/29/98 TIME: 13:31:27

Line	Error	Original Text
5	Unknown or Misplaced Identifier	(I) APPLICANTS:
15	Number of Sequences (0) Doesn't Equal Actual Count (2)	(iii)NUMBER OF SEQUENCES: Two
36	Wrong Classification	(C) CLASSIFICATION: (IPC)
43	Response Exceeds Line Limitations	EP 95201115.3
44	Response Exceeds Line Limitations	U.S. 614,115
45	Unknown or Misplaced Identifier	(B) FILING DATES:
61	Unknown or Misplaced Identifier	(C) E-MAIL: Glenn.Murphy Henkel-Americas.com